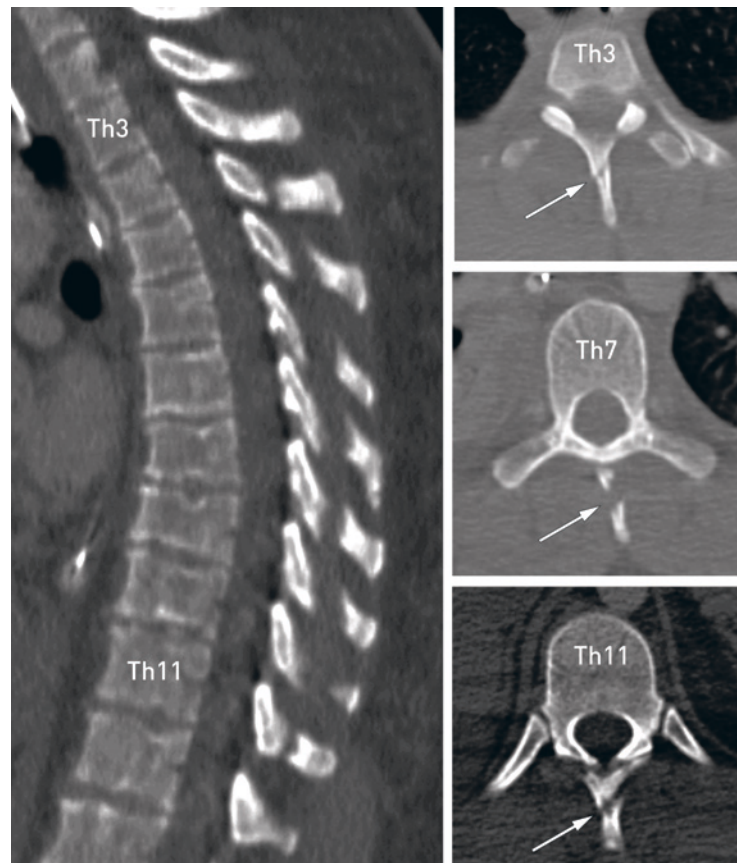


Clay-shoveller's fracture



A man in his twenties incurred multiple injuries in a snowmobile accident. When examined at A&E he scored 9 on the Glasgow Coma Scale (GCS 9), had severe pain and tenderness over the thoracic column, but no focal neurological deficit. A trauma CT revealed cerebral haemorrhagic contusion, fractures in the skull base, shoulder blades and ribs and pneumothorax as a result of rib fractures. Nine isolated fractures of the spinous process, also called 'clay-shoveller's fractures', were also found, from Th3 to Th11. Clinical examination and image diagnostics did not raise suspicion of further damage to the column. The fractures of the spinal column were treated conservatively with pain-killers and immobilisation for six weeks. After that he was fully mobilised and free of pain.

Clay-shoveller's fracture is an occupational injury that received a great deal of attention in the 1930s when it occurred during construction work on motorways, in Germany, among other places (1). The fractures occurred in road workers who shovelled heavy loads. This type of fracture is relatively uncommon today, and is probably a

frequently overlooked injury that is mainly associated with traffic accidents. Multilevel fractures (> 5) are very rare, and to our knowledge only two cases have been reported previously in the literature (2). Fractures may occur as a result of a direct blow to the spinous process or as a result of indirect trauma. A ballistic movement with strong extension, flexion or rotation of the cervicothoracic column may result in tearing of the supraspinous ligament. The fracture is usually stable and not associated with neurological deficit (1, 2). However, other injuries to the column must be excluded. The injury is normally treated conservatively (1, 2), but in some cases surgical extirpation of bone fragments is required for pain relief.

The patient has consented to the publication of the article.

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References

1. Venable JR, Flake RE, Kilian DJ. Stress fracture of the spinous process. *JAMA* 1964; 190: 881–5.
2. Akhaddar A, El-asri A, Boucetta M. Multiple isolated thoracic spinous process fractures (Clay-Shoveller's fracture). *Spine J* 2011; 11: 458–9.

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